

WHAT IS CLAIMED IS:

1. A thin glass substrate of a liquid crystal display device, comprising:

5 a glass; and

 at least one transparent protective layer formed on the glass.

10 2. The thin glass substrate according to claim 1, wherein a refractive index of the protective layer is 1.4-1.6.

15 3. The thin glass substrate according to claim 1, wherein the protective layer is an inorganic layer.

 4. The thin glass substrate according to claim 3, wherein the inorganic layer have a compressive stress.

20 5. The thin glass substrate according to claim 1, wherein the protective layer is an organic layer.

25 6. The thin glass substrate according to claim 5, wherein the organic layer includes a thermosetting resin.

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7. The thin glass substrate according to claim 6, wherein a viscosity coefficient of the thermosetting resin is several cp-several ten cp.

5 8. The thin glass substrate according to claim 1, wherein the protective layer includes one inorganic layer and one organic layer.

10 9. A liquid crystal display device, comprising:
a first substrate and a second substrate;
at least one transparent protective layer
formed on outer surface of the first substrate and the
second substrate;
a transparent electrode formed on inner surface
15 of the first substrate or the second substrate;
an alignment layer formed on the transparent
electrode; and
a liquid crystal layer between the first
substrate and the second substrate.

20 10. The liquid crystal display device according to claim 9, wherein a refractive index of the protective layer is 1.4-1.6.

25 11. The liquid crystal display device according

to claim 9, wherein the protective layer is an inorganic layer.

12. The liquid crystal display device according to claim 11, wherein the inorganic layer has a compressive stress.

13. The liquid crystal display device according to claim 9, wherein the protective layer is an organic layer.

14. The liquid crystal display device according to claim 13, wherein the organic layer includes a thermosetting resin.

15. The liquid crystal display device according to claim 14, wherein a viscosity coefficient of the thermosetting resin is several cp-several ten cp.

16. The liquid crystal display device according to claim 9, wherein the protective layer includes at least one inorganic layer and at least one organic layer.

17. A method of manufacturing a thin glass

substrate of a liquid crystal display device,
comprising the steps of:

providing a glass;

forming a substrate by processing the glass;

5 and

forming a protective layer on the glass
substrate.

10 18. The method according to claim 17, further
comprising steps of:

grinding a glass; and

scribing the ground glass.

15 19. The method according to claim 17, wherein
the step of processing the glass is executed after
forming the protective layer.

20 20. The method according to claim 17, wherein
the step of forming the protective layer includes the
step of irradiating the light after depositing an
organic matter on the glass substrate.

21. The method according to claim 20, wherein
the light is an ultraviolet or a visible ray.

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22. The method according to claim 17, wherein the step of forming the protective layer includes the step of coating an inorganic matter on the glass substrate.

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23. The method according to claim 17, wherein the step of forming the protective layer further includes steps of:

forming an organic layer by the light
10 irradiating after depositing an organic matter on the glass substrate; and

forming an inorganic layer by coating an inorganic matter on the organic layer.

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24. The method according to claim 23, wherein the light is an ultraviolet or a visible ray.

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25. The method according to claim 17, wherein the step of forming the protective layer further includes steps of:

forming an inorganic layer by coating an inorganic on the glass substrate; and

forming an organic layer by the light
irradiating after depositing an organic matter on the
25 inorganic layer.

26. The method according to claim 25, wherein the light is an ultraviolet or a visible ray.

27. A method of manufacturing a liquid crystal display device, comprising the steps of:

providing a first substrate and a second substrate;

forming at least one transparent protective layer on outer surface of the first substrate and the second substrate;

forming a transparent electrode on inner surface of the first substrate or the second substrate;

forming an alignment layer on the transparent electrode; and

forming a liquid crystal layer between the first substrate and the second substrate.